

14 HAZARDOUS MATERIALS

This chapter evaluates potential public health–related impacts associated with the release of hazardous substances during mining, processing, and/or reclamation and the potential exposure of people to harmful substances. Mitigation measures are provided as necessary to reduce significant impacts of the project. The analysis contained in this chapter is based on information acquired from the Placer and Yuba County general plans, site specific environmental documentation, and the requirements of federal and state regulations. A discussion of health risks associated with diesel particulate emissions and noncriteria pollutants, such as asbestos and crystalline silica, is presented in Chapter 8, Air Quality. Impacts related to hazardous materials that could result in degradation of groundwater and surface water quality are discussed in Chapter 11, Water Resources.

14.1 EXISTING CONDITIONS

Land uses on and near the Patterson mine site are related primarily to agriculture and aggregate mining. Nearby residences are located south, southwest, and southeast of the Patterson mine site. Potential hazardous materials associated with these land uses consist of pesticide application on agricultural lands and storage and handling of hazardous materials (including fuels, lubricants, and solvents) at the aggregate mining facility. As defined in California Health and Safety Code §25501, a hazardous material is:

... any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety, or to the environment. Hazardous materials include, but are not limited to, hazardous substances, hazardous waste, radioactive materials, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

EXISTING HAZARDOUS MATERIALS USE AT THE MINE SITE

Hazardous materials currently used by Patterson Sand and Gravel for processing operations and mining activities are stored in the processing area. Existing aboveground storage tanks at the plant include one 12,000-gallon diesel tank, one 2,000-gallon gasoline tank, three 550-gallon motor oil tanks, one 550-gallon waste oil tank, and a 300-gallon used antifreeze tank (Exhibit 14-1). In addition, the facility uses compressed oxygen, acetylene, antifreeze, oils and lubricants, and cleaning solvents. These materials are stored within the maintenance building and in a designated outdoor containment area located on the northeast side of the existing maintenance shop at the processing plant, shown in Exhibit 14-1.

In April 1990, one 10,000-gallon underground diesel tank and two 2,000-gallon underground gasoline tanks were removed from the northeast portion of the processing area. Analysis of soil samples collected from the excavation indicated elevated levels of total petroleum hydrocarbons, and a remedial

Exhibit 14-1

investigation was required by the Central Valley RWQCB. Contaminated soils were excavated and hauled to a landfill for disposal, and monitoring wells were installed to determine impacts on groundwater quality, if any. Groundwater samples collected from the monitoring wells indicated little if any impact on groundwater quality and the site was approved for closure by the Central Valley RWQCB in August 1996.

Processing of mined materials is conducted either near the excavation area, in the portable topsoil screening plant, or in the main processing area south of the Bear River. Wastewater from the processing plant is combined with the sandy silt portion of the plant processing fines (nonmarketable material) to form a slurry that is pumped to settling ponds. The clarified water from the settling ponds is pumped back the processing plant for reuse. The previous operator of the mine and processing plant mixed a coagulating agent (NALCO 95DC118 CAT COAG) with the slurry to expedite settling of the fine-grained suspended sediments. This coagulating agent is approved for use by EPA and is commonly used at wastewater and potable water treatment plants. Although use of the coagulating agent has been discontinued by the present operator (Burns, pers. comm., September 2001), a 2,000-gallon coagulant storage tank remains at the plant site and is used to store water (refer to Exhibit 14-1).

EXISTING HAZARDOUS MATERIALS MANAGEMENT

Management of the hazardous materials at the site is controlled under the Hazardous Materials Business Plan (referred to below as the “business plan”) and the Hazard Communication Program. Business plans inventory all hazardous materials stored at a facility and describe emergency measures to be implemented in case of accidents or spills. Hazard communications programs inform employees of the hazards associated with the handling of hazardous materials. The business plan for the Patterson mine site is updated annually and submitted to the Placer County Department of Health and Human Services, Division of Environmental Health, in compliance with state regulations. A Hazardous Materials Inspection Report (dated June 19, 2001) is on file with Placer County for the mine site and indicates that the facility was in compliance at that time. In addition, the applicant is responsible for maintaining and implementing a Spill Prevention Control and Countermeasure Plan for operation of the aboveground petroleum storage tank.

The project site is also governed by an Emergency Action and Fire Prevention Plan (EAFPP). The purpose of the EAFPP is to establish procedures to be implemented to protect workers and visitors to the facility during an emergency situation, including fire, hazardous materials releases, earthquakes, explosions, or serious accidents. The plan identifies emergency response and notification procedures, employee alarm systems, evacuation procedures, and employee safety training.

The land uses surrounding the proposed project are related to agricultural production. Existing walnut orchards are located in the western portion of mining Phase 1. Rice fields are in production in the area south of the processing plant site, including Phase 6. Agricultural chemicals (including pesticides and fertilizers) have probably been used in these areas.

14.2 REGULATORY BACKGROUND

Several local, state, and federal requirements pertain to hazardous materials and hazardous waste transport, use, storage, disposal, and training of workers using these materials. State requirements generally mirror federal requirements, although in some cases they are more stringent than the federal requirements. State requirements, which can be strengthened through the adoption of local ordinances, are often enforced by a local administering agency, such as a county health department or fire department.

HAZARDOUS MATERIALS MANAGEMENT

The use, storage, and disposal of hazardous materials, including management of contaminated soils and groundwater, are regulated by numerous local, state, and federal laws and regulations. EPA is the federal agency that administers hazardous materials and waste regulations. State agencies include the California Environmental Protection Agency (Cal-EPA), which includes the California Department of Toxic Substances Control (DTSC), the Central Valley RWQCB, CARB, and other offices within its purview. PCAPCD has jurisdiction over the air basin. Local regulatory agencies include Placer County Environmental Health Services, and the Placer County Office of Emergency Services. A description of agency jurisdictions and involvement in management of hazardous materials is provided below.

U.S. ENVIRONMENTAL PROTECTION AGENCY

EPA is the federal agency responsible for enforcement and implementation of federal laws and regulations pertaining to hazardous materials. The legislation includes the Resource Conservation and Recovery Act of 1986 (RCRA), the Superfund Amendments and Reauthorization Acts of 1986 (SARA), and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). The federal regulations are codified primarily in Title 40 of the Code of Federal Regulations. EPA provides oversight and supervision for site investigations and remediation projects, and has developed land disposal restrictions and treatment standards for the disposal of certain hazardous wastes.

CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL

DTSC works in conjunction with EPA to enforce and implement specific laws and regulations pertaining to hazardous wastes. The California legislation, for which DTSC has primary enforcement authority, includes the Hazardous Waste Control Act and the Hazardous Substance Account Act. Most state hazardous waste regulations are contained in Title 22 of the California Code of Regulations. DTSC generally acts as the lead agency for soil and groundwater cleanup projects, and establishes cleanup and action levels for subsurface contamination that are equal to, or more restrictive than, federal levels.

CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD

The Central Valley RWQCB is authorized by the California Porter-Cologne Water Quality Act of 1969 to implement water quality protection laws. The Central Valley RWQCB provides oversight for sites where the quality of groundwater or surface waters is threatened, and has the authority to require investigations and remedial actions.

CALIFORNIA AIR RESOURCES BOARD AND THE PLACER COUNTY AIR POLLUTION CONTROL DISTRICT

The project site is in the Sacramento Valley Air Basin, which is composed of eight air districts, including the PCAPCD. CARB and PCAPCD have joint responsibility for developing and enforcing regulations needed to achieve and maintain state and federal ambient air quality standards in the district. CARB is responsible for enforcing the Clean Air Act and the California ambient air quality standards. PCAPCD is responsible for regulating air emissions from stationary sources, monitoring air quality, and reviewing air quality issues in environmental documents. In addition, PCAPCD is responsible for permitting of demolition activities for structures which may contain asbestos containing materials.

PLACER COUNTY ENVIRONMENTAL HEALTH SERVICES

Placer County Environmental Health Services, is a Certified Unified Program Agency (CUPA). The department is the local agency responsible for coordinating hazardous waste generator programs, managing underground fuel tanks, coordinating the tiered permitting process for waste treatment, and administering the business plan program.

Businesses that store, handle, or dispose of hazardous materials must submit a business plan in accordance with California Health and Safety Code §25504. The business plans must be updated every 2 years or within 30 days after a substantial change in site operations. The business plan must:

- ▶ list all the hazardous materials stored at a site,
- ▶ identify emergency response procedures for spills and personnel,
- ▶ identify evacuation plans and procedures, and
- ▶ identify training records for personnel to substantiate annual refresher training.

If hazardous materials are used or stored at a site, all employees are also required to receive hazard communication training. The purpose of the training is to ensure that employees understand the nature of the hazardous materials that they handle and can safely use, store, and dispose of the materials in accordance with CCR Title 8. The hazard communication standard requires that employers:

- ▶ prepare an inventory of hazardous materials,
- ▶ make Material Safety Data Sheets available to employees,
- ▶ conduct employee training on chemical hazards and safe handling of materials, and
- ▶ ensure that hazardous material containers are properly stored and labeled.

PLACER COUNTY OFFICE OF EMERGENCY SERVICES

Among other responsibilities, the Placer County Office of Emergency Services administers the Placer County Fire Department and fire protection contracts with CDF, and manages the Placer Operational Area Interagency Hazardous Materials Response Program. It also provides training to emergency responders and responds to hazardous materials releases and other emergencies

WORKER HEALTH AND SAFETY

Worker health and safety is regulated at the federal level by the Occupational Safety & Health Administration (OSHA) of the U.S. Department of Labor. Under this jurisdiction, workers at hazardous waste sites must receive specialized training and medical supervision according to the Hazardous Waste Operations and Emergency Response (HAZWOPER) regulations (29 CFR Part 1210.120). Additional regulations have been developed for construction workers potentially exposed to lead (29 CFR Part 1926.62) and asbestos (29 CFR Part 1926.1101). EPA administers federal regulations for the protection of agricultural workers involved in pesticide use (40 CFR).

Worker health and safety in California is regulated by the California Division of Occupational Safety and Health (Cal-OSHA). California standards for workers dealing with hazardous materials are contained in CCR Title 8, and include practices for all industries (General Industry Safety Orders) and specific practices for construction, and hazardous waste operations and emergency response. Cal-OSHA conducts onsite evaluations and issues notices of violation to enforce necessary improvements to health and safety practices.

LEAD AND ASBESTOS-CONTAINING MATERIALS

Federal and state regulations govern the demolition of structures where lead or materials containing lead are present; these regulations are promulgated by OSHA and Cal-OSHA, respectively (29 CFR Part 1926.62; CCR Title 8, §1532.1). Air monitoring, appropriate respiratory protection and other personal protective equipment for workers, methods of compliance (e.g., engineering and work practices, and development of a compliance program to reduce lead exposure to workers), housekeeping measures, hygiene facilities, medical surveillance, medical removal protection, employee information and training, signage of work areas containing lead, and recordkeeping, may apply depending on a worker's exposure to lead.

Federal, state, and local regulations also govern the removal of asbestos or suspected asbestos-containing materials, including the demolition of structures where asbestos is present, appropriate containment, worker practices, engineering controls, air monitoring, respiratory protection and other personal protective equipment for workers, hygiene facilities and practices, hazard communication (including worker training), housekeeping procedures, medical surveillance of workers, reporting, recordkeeping, and disposal are required, as applicable, under these regulations (29 CFR Part 1926.1101; 40 CFR Parts 61 and 152; CCR Title 8, §1529; and PCAPCD Rule 217). Asbestos regulations are promulgated by EPA, OSHA, Cal-OSHA, and PCAPCD.

14.3 ENVIRONMENTAL IMPACTS

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the State CEQA Guidelines, the proposed project would have a significant impact related to hazardous materials if it would:

- ▶ create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- ▶ create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment;
- ▶ emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school; or
- ▶ be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, create a significant hazard to the public or the environment.

PROJECT IMPACTS

Impact
14-1

Accidental Releases of Hazardous Materials. *Spills or other accidental releases of fuels, lubricants, solvents, or other hazardous materials used for construction of the proposed asphalt batch plant could adversely affect soil, groundwater quality, and the health and safety of workers. This impact is considered **potentially significant**.*

Mining, reclamation, and construction and operation of the proposed asphalt batch plant would include the use of hazardous materials. Current mine operations include the use of hazardous materials. The potential for release of hazardous materials at the mine site under current operations is addressed in the existing Patterson Sand and Gravel EAFPP. In addition to emergency notification and employee alarm procedures, the plan includes specific hazardous materials spill/release response procedures. Emergency response procedures for hazardous materials releases are also presented in the current SWPPP. The proposed expansion of mining and reclamation activities would include the use of equipment and hazardous materials similar to the currently permitted operation, and would not increase the risk of an accidental release of hazardous materials beyond existing conditions.

The proposed project would include construction and operation of a new asphalt batch plant. Operation of the plant would include the storage of asphalt oil in aboveground heated storage tanks at the proposed asphalt batch plant. It is estimated by the applicant that approximately 40,000 gallons of asphalt oil would be stored at the site in two 20,000-gallon storage tanks (Burns, pers. comm., September 2001). The oil would be heated with propane. While releases from the tanks could occur, potentially affecting human health and the environment, the nature of the asphaltic oil minimizes the potential severity of a release. The oil must be heated to reduce viscosity. Any accidental release from the tanks would quickly cool, becoming immobile in surrounding soils. Further, existing programs and

procedures for regulating the use and storage of the product are already in place. In compliance with the Aboveground Petroleum Storage Tank Act administered in Placer County by the Central Valley RWQCB, the applicant would be required to modify their existing Spill Prevention Control and Countermeasure Plan to include asphalt batch plant operations and to document measures to prevent discharges of petroleum products.

Construction of the asphalt batch plant would involve fueling and maintenance activities that could result in spillage of fuels, lubricants, solvents, or other hazardous materials and could result in adverse effects on soil and groundwater quality and affect the health and safety of workers. This impact is considered potentially significant.

Impact
14-2

Potential Residual Chemicals in Reclamation Soils. *The potential presence of residual levels of agricultural chemicals in soils at the proposed mining areas may present adverse health impacts to workers during excavation and stockpiling. This impact is considered potentially significant.*

Mining activities conducted for the proposed project would occur in some areas that are currently used for agricultural crop production. Use of pesticides (including herbicides and insecticides) in these areas presents the potential for mine workers to be exposed to residual levels of these chemicals in soil. Phases 4 and 5 of the proposed expansion area include existing walnut orchards. The most common pesticides used in Placer County on this crop include chlorpyrifos and copper hydroxide. Mining in Phase 6 would be conducted in an area currently supporting rice production. The most common pesticides applied for rice production include carbofuran, copper sulfate, dimethylamine salts, and molinate. Mining would result in temporary, phased cessation of agricultural activities, therefore reducing the duration of exposure to agricultural workers, and reducing residual concentrations in soils and on the plants. However, workers may be exposed to residual levels of agricultural chemicals during excavation activities. Potential exposure pathways include dermal contact with soil and inhalation of dust that may contain the agricultural chemicals. This impact is considered potentially significant.

14.4 MITIGATION MEASURES

Mitigation measures are provided below for *potentially significant* impacts of the proposed project.

Mitigation Measure R14-1: Prepare Storm Water Pollution Prevention Plan for Asphalt Batch Plant Construction. The applicant shall prepare the Storm Water Pollution Prevention Plan (SWPPP) required in Mitigation Measure R11-5 before construction of the asphalt batch plant. The SWPPP shall include measures to protect surface water and groundwater quality from spillage of fuels, lubricants, solvents, or other hazardous materials.

Mitigation Measure R14-2: Prepare a Worker Health and Safety Plan for Excavation of Surface Soils in Areas of Past Agricultural Activities. Before excavation within the Phase 4, 5, and 6 areas, the applicant shall prepare a Health and Safety Plan to minimize the risk of exposure of workers to residual agricultural chemicals in soil. The plan shall describe the chemicals potentially contained in the soil and potential routes of exposure; incorporate construction safety measures (including appropriate

personal protective equipment and procedures) for excavation activities; establish procedures for the safe storage and use of hazardous materials at the project site, if necessary; provide emergency response procedures; and designate personnel responsible for implementation of the HSP. The HSP shall be submitted to Placer County Environmental Health Services for review and approval.

14.5 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Following implementation of the above mitigation measures, all potential impacts related to hazardous materials would be reduced to a *less-than-significant* level.